

## REMARKS

Under this Amendment, Claims 10 and 12 have been amended to more clearly define over the prior art, Claim 11 has been cancelled because the subject matter has been added to Claim 10, and since remaining Claims 1 to 9 and 20 are allowed, reconsideration of this application is respectfully requested. Also, applicant is attaching a new Abstract in compliance with 37 CFR 1.72.

Firstly, applicant would like to express his appreciation to Examiner Blau for withdrawing the finality of the Action of February 19, 2003, and permitting applicant this final opportunity to secure allowance of this application.

Claims 10 to 12, in whole or in part, have been rejected in three separate rejections in paragraphs, 8, 9 and 10 of the Office Action. Since these rejections are all related, applicant is electing to treat them together because of their common feature.

The first rejection of Claims 10 and 11 is under 35 USC 103(a) as being unpatentable over Shaw in view of Official Notice. Applicant does not disagree with the Examiner's statement "that is well known in the art to have shafts connected to heads" at the end of paragraph 8.

The paragraph 9 rejection of Claims 10 and 11 is under 35 USC 103(a) as being unpatentable over Elmer in view of Shaw and Dill.

And finally in paragraph 10, Claims 10 and 12 have been rejected under 35 USC 103(a) as being unpatentable over Lu in view of Shaw.

Each of these rejections is key to the teachings of Shaw, and since the applicant and the Examiner disagree as to what Shaw does and does not teach, this discussion will focus on the deficiencies of the Shaw, U.S. Patent No. 5,362,047. The Examiner states that "Shaw shows face walls having progressively increasing thickness in a line in the form different experience golfers require different thickness/weight distribution(Col.3, Lns.64 through Col.4, Ln.18). Clearly changing the thickness at a location on a face piece would also change the modulus of elasticity at that location." There is cited text in the Shaw patent beginning at lines 64 in Column 4 that does not support the Examiner's position. That quoted paragraph reads as follows:

"A low specific gravity face-piece component having a thickness which decreases in the top edge to sole direction provides main body mass for distribution in the sole, thereby providing a head with a low center of gravity which tends to confer a high launch angle to balls struck by the iron, and consequently usually a high ball trajectory. Conversely,

such a face-piece component having a thickness which increases in the top edge to sole direction provides main body mass for distribution in the top edge, thereby providing a head with a high center of gravity which tends to confer a low launch angle to balls struck by the iron and consequently usually a lower ball trajectory. It will be appreciated that the trajectory of a ball also depends on the spin imparted to the ball. However, generally, heads having a low center of gravity are more suitable for inexperienced golfers and heads having a high center of gravity are more suitable for experienced golfers. The present invention provides a means of 'fine tuning' iron heads to suit the ability of a golfer by selection of face piece component thickness gradation and complementary main body weight distribution to provide appropriate centers of gravity of the heads."

What Shaw is referring to is thickness variation in the face wall of a single head, as shown in Fig. 1 of his patent. This is not a suggestion that thickness variation can be made progressively greater in a line of clubs from one head to another, and the Examiner has cited no patents that disclose this feature.

To emphasize this distinction, applicant has amended Claim 10 to recite that the "face walls have a progressively increasing thickness in the line".

Since Shaw is relied on for this feature in each of the three rejections; namely, the rejection over Elmer in view of Shaw and Dill, and the rejection of Claims 10 and 12 as being unpatentable over Lu in view of Shaw, these other two rejections must fail as well.

For example, in the rejection over Elmer in view of Shaw and Dill, the Examiner states: "Shaw discloses a line of clubs(abstract), selecting face piece material based on flexural modulus(Col.2, Lns.13-24) and face walls having progressively increasing thickness in a line(Col.3, Lns.64 through Col.4, Ln.18) in order to suit the attributes of a specific golfer(Col.1, Lns.60-64)". But these statements are simply incorrect as noted above.

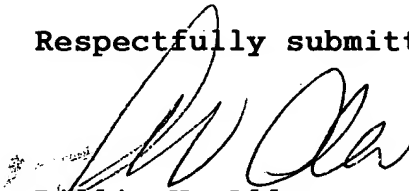
And finally in the rejection over Lu in view of Shaw, the Examiner states:

"Lu lacks the different striking characteristics being modulus of elasticity, and a line of clubs. Shaw discloses selecting face piece material based on flexural modulus(Col. 2, Lns.13-24) and a line of clubs(abstract, Col.2, Lns. 39-59, Col.3, Lns.64 through Col. 4, Ln.18) in order to suit the attributes of a specific golfer(Col.1, Lns.60-64). In view of the patent of Shaw it would have been obvious to modify the head of Lu to have interchangeable face walls each having a different modulus of elasticity in order to suit the attributes of a specific golfer."

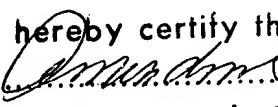
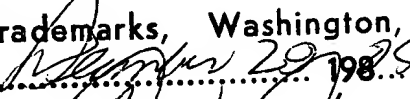
Because the cornerstone of each of these rejections is based upon a major misinterpretation of the Shaw patent, all three of these rejections must fail and Claims 10 and 12 should be allowed.

As applicant has placed this application in condition for allowance, reconsideration and issuance are respectfully requested.

Respectfully submitted,

  
Dillis V. Allen  
Attorney for Assignee  
Reg. No. 22,460

Dillis V. Allen, Esq.  
105 S. Roselle Road  
Suite 101  
Schaumburg, IL 60193  
847/895-9100

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